

**REMARKS**

In the July 26, 2002 Final Office Action, claims 11-20 are subject to a final rejection in view of prior art, and the title is subject to an objection. By this Amendment, claims 11-20 remain unchanged and arguments traversing the rejection are presented. Also, the title has been amended in response to the objection thereto. Additionally, new claims 21-30 have been added. Thus, this Amendment leaves claims 11-30 pending in the application, with claims 11 and 21 being independent claim. Reconsideration of the rejections and allowance of all claims is respectfully requested.

October 22, 2002 Personal Interview

Applicant and Applicant's representative are appreciative of the courtesies extended during the October 22, 2002 personal interview at the U.S. Patent and Trademark Office with Primary Examiner Tamai and with Examiner Cuevas. During the interview, arguments were presented by Applicant's representative traversing the outstanding rejection to the claims. In particular, both the Mitcham and Hatch patents, which were relied upon in the outstanding July 26, 2002 final Office Action, were discussed in detail primarily with respect to claims 11, 14 and 15. Although no formal agreement was reached, the Examiners suggested that an after-final amendment be filed to amend the title and to formally present the arguments traversing the outstanding rejection so that the arguments traversing the final rejection could be formally considered.

January 15, 2003 Advisory Action

In paragraph 5, the January 15, 2003 Advisory Action states that "there are some differences between the claimed invention and the prior art." As the claims define the "claimed invention," this statement appears to indicate that the claims contain allowable subject matter. Accordingly, indication of the allowable subject matter is respectfully requested.

Also in paragraph 5, the Advisory Action states that "independent claim 11 only requires insulation [sic] between the bolt and the rotor discs." This is inaccurate. Claim 11 recites only one rotor disc and recites an air gap to insulate the laminations of the rotor rim from the bolt.

That is, claim 11 recites a "rotor disc assembly comprising a rotor disc and at least one circumferential rotor rim mounted on the rotor disc." Thus, claim 11 recites a rotor disc

assembly having a rotor disc and a rotor rim and only recites one rotor disc not plural rotor discs as stated in the Advisory Action. Also, claim 11 recites a “rotor rim comprising at least one row of alternate magnets and laminated pole pieces comprising laminations,” as well as “a clearance air gap being provided to electrically insulate the laminations from the bolt passing therethrough.” Thus, the recited insulation is between the bolt and the laminations of the rotor rim.

Objection to the Title

In paragraph 2 of the Final Office Action, the title is indicated as being nondescriptive. Accordingly, the title has been amended as set forth above, in a manner similar to that suggested by the Examiner. Accordingly, withdrawal of the objection and entrance of the new title is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

In paragraph 4 of the Final Office Action, claims 11-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mitcham (US 5877578) in view of Hatch (US 4208600). This rejection is respectfully traversed and reconsideration of this rejection is respectfully requested.

i. Claim 11

The Office Action states that Mitcham “fails to disclose a clearance gap being provided to electrically insulate the laminations from the bolt passing therethrough.” The Office Action then relies upon Hatch to provide for the shortcomings of Mitcham. The Office Action states that it would have been obvious “to use the insulating sleeve and the air gap concept disclosed by Hatch on the rotor disc disclosed by Mitcham et al. for the purpose of electrically insulating the shielding members.” Applicants believe that Mitcham and Hatch can not properly be combined and if combined, the resulting structure does not satisfy the claim limitations.

First, inasmuch as the motivational statement provided for the rejection states that the purpose of the combination is for “insulating the shielding members,” it is not evident that Mitcham discloses shielding members, especially shielding members similar to those disclosed by Hatch. Therefore, there would be no motivation to insulate that which does not exist in Mitcham.

Additionally, the insulating sleeve 34 of Hatch exists only on *one end* of the bolt 45. The other end of bolt 45 is *threaded* into shielding section 30. Thus, even if it was assumed

that the insulating sleeve 34 of Hatch could somehow be provided to Mitcham, the resulting structure would consist of an insulating sleeve 34 only at *one end* of the bolt in Mitcham. More specifically, the proposed combination would result in the insulating sleeve 34 being positioned in the hole *in the rotor disc 14* of Mitcham that receives the bolt extending through bolt hole 22 in rim 16. However, this proposed combination would not provide a clearance air gap to electrically insulate the laminations from the bolt passing therethrough, as claimed, since the insulating member 34 of Hatch does not provide the clearance air gap in Hatch and would not provide a clearance air gap in the combination proposed in the Office Action. As seen in Fig. 3 of Hatch, the insulating member 34 does not provide the spacing that separates the bolt 45 and the discs 25 and 27. In fact, the insulating sleeve 34, as illustrated in Fig. 3 of Hatch, does not contact the discs 26 and 27 and it appears that even if the insulating member 34 was removed, the bolt 45 of Hatch would still be spaced from the discs 26 and 27.

Further, if we continue to assume that *one* insulating sleeve 34 can be provided to Hatch, there is still no explanation as to how the *other end* of the bolt of Mitcham is secured to satisfy claim 11 and provide for the claimed clearance air gap. That is, the Office Action provides no explanation as to how, structurally, a clearance air gap could exist in Mitcham while electrically insulating the laminations from the bolt, as claimed. This is a result of there being no disclosure or suggestion in either Mitcham or Hatch to provide for any structure that would maintain “a clearance air gap being provided to electrically insulate the laminations from the bolt passing therethrough” as claimed. The threaded end of the bolt 45 of the proposed combination would fail to provide the clearance air gap to electrically insulate the laminations from the rest of the bolt, as claimed. Also, it would not be obvious to provide an insulating sleeve 34 at both ends of the bolt 45 since the end of bolt 45 opposite the insulating sleeve 34 is *threaded* into shielding section 30.

Thus, not only is there no motivation to combine the references as proposed, but, even if assumed proper, the proposed combination does not satisfy claim 11.

ii. Claims 12-20

Claims 12-20 depend from and further limit claim 11 and are allowable over the prior art of record at least for the reasons set forth above with respect to claim 11. Additionally, the dependent claims recite limitations that are themselves allowable over the prior art of record.

Claim 14

For example, claim 14 recites that the “stack of bonded laminations is mounted concentrically on the bolt in a radially spaced relationship by the provision of insulated annular members at either end of the stack.” Thus, claim 14 recites *multiple* insulated annular members. Claim 14 also recites annular members at each end of the stack. The Office Action, with respect to claim 14, states that “Hatch discloses elastomeric resilient annular members (34) which are insulated and recessed at either end of the stack as shown in Figure 3.” This is not accurate. Hatch only discloses *one* annular member 34 at *one* end of the bolt 45. And as mentioned above, it would not have been obvious to provide an insulating sleeve 34 at both ends of the bolt 45 since Hatch discloses that the opposite end of bolt 45 is threaded.

Claim 14 also requires that the laminations are mounted concentrically on the bolt in a radially spaced relationship “by the provision of insulated members.” Thus, the multiple insulated members provide the radial spacing. However, in Hatch, even the one insulating sleeve 34 does not provide for an insulating clearance air gap between the bolt 45 and the discs 26 and 27. In fact, as seen in Figure 3 of Hatch, there is *no* contact between the discs 26, 27 and the insulating sleeve 34 and it appears that removal of the sleeve 34 would not result in contact between the bolt and the discs 26 and 27.

#### Claim 15

Another example is claim 15, which requires that “the insulated annular members are recessed into either end of the stack.” Thus, claim 15 requires an insulating member recessed into each end of the stack. As seen in Fig. 3 of Hatch, even the single insulating sleeve 34 is *not* recessed into the discs 26 and 27. At best, the one insulation sleeve 34 of Hatch is recessed only within extension 35 of shielding section 29, which is not a “stack of bonded laminations,” as claimed.

#### Claim 18

Yet another example is claim 18, which requires “means provided on the bolt for compressing the laminated pole pieces.” This limitation invokes 35 USC §112, 6<sup>th</sup> paragraph. Thus, the claim covers the corresponding structure described in the specification and equivalents thereof. As disclosed in the subject specification, the pole pieces are compressed on the bolts by nuts 28 and washers 30 (Substitute Specification, page 4, lines 6-7). However, neither Mitcham nor Hatch disclose nuts and washers. Hatch, instead, discloses that its bolt 45 is not attached by nuts and washers, but by a threaded connection directly into a shielding section 30 of a stator, as seen in Fig. 3.

If the Office Action contends that the structure of Hatch is an equivalent structure, then Applicants respectfully request that "an explanation and rationale" be provided "in the Office action as to why the prior art element is an equivalent" as required by MPEP 2183 and using the appropriate factors as set forth in MPEP 2183.

In summary, the rejection to claims 11-20 is improper and the withdrawal of the rejection is respectfully requested. Additionally, since none of the prior art of record, whether taken singularly or in combination, satisfy the limitations of the claims, claims 11-20 are believed allowable over the prior art of record.

New Claims 21-30

New claims 21-30 are added to define additional features of the invention.

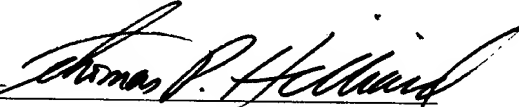
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In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited, including entrance of this Amendment. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the title by the current amendment. The attached Appendix is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE." Also attached is a "CLAIM SUMMARY DOCUMENT" as requested by the Commissioner.

Respectfully submitted,

Pillsbury Winthrop LLP

By: 

Thomas P. Hilliard

Reg. No.: 40330

Tel. No.: 202.775.9868

1133 Connecticut Avenue, NW  
Washington, DC 20036  
(202) 775.9800  
Enclosure: Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

Please replace the title with the following new title:

- - ROTOR DISC ASSEMBLY HAVING ROTOR RIM WITH ALTERNATE  
MAGNETS AND LAMINATED POLE PIECES - -

End of Appendix.